

**CLAIMS:**

1. A system architecture for facilitating a self-provisioning of services by a subscriber, the system architecture comprising:

- a) a subscriber device (11), designed and configured to deliver the services to the subscriber;
- b) a service provider (13), organized to offer the services to the subscriber device (11);
- c) an infrastructure (12), designed and configured to transport the services from the service provider (13) to the subscriber device (11); and
- d) a system control (14), designed and configured to enable the subscriber device (11) to receive the services over the infrastructure (12) from the service provider (13).

2. The system architecture of claim 1, wherein the system control (14) further comprises a device management system (400) that is configured to allow the subscriber to choose from a series of functions which may change the self-provisioning of services by reconfiguring the subscriber device (11) and the infrastructure (12).

3. The system architecture of claim 2, wherein the system control (14) further comprises:

a) a user interface (210), designed and configured to allow the subscriber to interface with the system control (14); and

b) a service management system (300), designed and configured to allow the subscriber, via the user interface (210), to manage functions that modify the capability of the self-provisioning of services.

4. The system architecture of claim 3, wherein the system control (14) further comprises an account management system (500), designed and configured to allow the subscriber, via the user interface (210), to access current information regarding the subscriber and the self-provisioning of services.

5. The system architecture of claim 4, wherein the system control (14) further comprises a database (209) that stores information related to the services, the subscriber, the subscriber device (11), the service provider (13), and the infrastructure (12).

6. The system architecture of claim 2, wherein the device management system (400) further comprises:

- a) a generic device configuration database (322) that provides a vendor neutral description of a generic device configuration (303);
- b) a vendor configuration mapping database (422) that provides translation of the generic device configuration (303) into vendor specific parameters; and
- c) a service level database (425) that contains rules designed to regulate changes to the subscriber device (11) and the infrastructure (12) in order to minimize service disruptions.

7. The system architecture of claim 6, wherein the device management system (400) further comprises:

- a) a specific device configuration database (424) that contains data regarding specific device configurations for the infrastructure (12) and the subscriber device (11); and
- 5 b) a SDC system (401) that is designed and configured to:
  - i) access the generic device configuration database (322), the vendor configuration mapping database (422), and the service level rules database (425);
  - 10 ii) create data regarding the specific device configurations for the infrastructure (12) and the subscriber device (11); and
  - iii) store the specific device configuration data in the specific device configuration database (424).

8. The system architecture of claim 7, wherein the device management system (400) further comprises an infrastructure configuration system (402) that is designed and configured to:

- a) access the generic device configuration database (322), the vendor configuration mapping database (422), and the service level rules database (425);
- b) create specific infrastructure configuration data about the infrastructure (12); and
- 20 c) store the specific infrastructure configuration data in the specific device configuration database (424).

9. The system architecture of claim 8, wherein the device management system (400) further comprises:

a) a change audit database (324) that contains a record of changes made to the subscriber device (11) and of changes to the infrastructure (12); and

b) a configuration verification system (404) that verifies proper configuration of the subscriber device (11) and the infrastructure (12).

10. The system architecture of claim 6, wherein the generic device configuration (303) is a set top box (104).

11. The system architecture of claim 1, wherein the system control (14) further comprises an account management system (500), designed and configured to allow a subscriber to manage and review account and financial data about the services provided by the self-provisioning of services.

12. The system architecture of claim 11, wherein the account and financial data further comprises:

- a) subscriber information;
- b) authentication information;
- 5 c) billing account payment information; and
- d) account history information.

13. The system architecture of claim 2, wherein the system control (14) further comprises a service management system (300) that allows the subscriber to choose from a group of functions  
10 designed to customize the services provided by the self-provisioning of services.

14. The system architecture of claim 13, wherein the service management system (300) further comprises a service configuration system (305) that coordinates the customizations elected by the subscriber.

15. The system architecture of claim 14, wherein the service configuration system (305) further comprises:

- a) an authorization system (302) that authorizes the subscriber to self-provision services;
- 5 b) a capacity validation system (301) that determines whether the infrastructure (12) and the service provider (13) can support the self-provisioning of services;
- c) a service request system (304) that provides notification regarding actions not automatically performed by the system control (14); and
- d) a generic configuration system (303), that is designed to:
  - 10 i) identify generic service provider provisioning parameters, infrastructure provisioning parameters and subscriber device provisioning parameters;
  - ii) provide the generic service provider provisioning parameters to the service provider (13); and
  - iii) store the generic infrastructure provisioning parameters and generic
  - 15 subscriber device provisioning parameters.

16. The system architecture of claim 15, wherein the generic configuration system (303) stores the generic infrastructure and subscriber device provisioning parameters in a generic device configuration database (322).

17. The system architecture of claim 16, wherein the generic device configuration (303) is used by the device management system (400).

18. The system architecture of claim 16, wherein the generic device configuration database (322) is used by a SDC system (401) and an infrastructure configuration system (402).

19. A method of self-provisioning services for a subscriber, the method comprising the steps of:

- a) formatting services data provided by the subscriber via a user interface;
- b) presenting the services data provided by the subscriber to the data via the user interface;
- c) allowing the subscriber to change the services data via a service management function;
- d) allowing the subscriber to conduct financial transactions relating to the self-provisioning of services and changes made by the subscriber to the services;
- e) recording subscriber information in the form of changes to the services data and the financial transactions conducted within a database; and
- f) translating the subscriber information into configuration commands, which are used to make changes to hardware and software systems relating the self-provisioning of services by a subscriber.



20. The method claim 19, wherein the user interface further formats an account configuration process that is designed to configure the database by adding users and checking service and payment histories.

5 21. The method of claim 20, wherein the account configuration process relays information within the database to a billing process that is designed to manage accounting and payment processing for the changes made to the services data by the subscriber.

10 22. The method of claim 20, wherein the account configuration process relays information within the database to an account database that contains information and service parameters pertaining to the subscriber.

23. The method of claim 20, wherein the account configuration process relays all information within the database to a change audit repository for creating a transactional history.